REMARKS

Applicants respectfully request reconsideration and allowance of claims 1-32 that are pending in the above-identified patent application.

Applicants acknowledge with appreciation that in numbered part 3 of the Office Action, the Examiner deemed claims 7, 15, 23, and 31 as containing patentable subject matter.

In numbered part 1 of the Office Action, the Examiner rejected claims 1-4, 8-12, 16-20, 24-28, and 32 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,314,146 ("the Tellado reference"). Applicants respectfully traverse the Examiner's rejection.

Independent method claim 1 of the instant application requires: "(b) recovering data symbols from the transformed OFDM signal, which include clipping noise; (c) estimating the clipping noise in the frequency domain based on the data symbols; and (d) subtracting the estimated clipping noise from the transformed OFDM signal."

Independent apparatus claim 9 requires "a decoding unit operable to recover data symbols from the frequency domain OFDM signal, which include clipping noise; a noise estimator operable to estimate the clipping noise in the frequency domain based on the data symbols; and a difference circuit operable to subtract the estimated clipping noise from the transformed OFDM signal."

Independent apparatus claim 17 requires "(b) recovering data symbols from the transformed OFDM signal, which include clipping noise; (c) estimating the clipping noise in the frequency domain based on the data symbols; and (d) subtracting the estimated clipping noise from the transformed OFDM signal."

Independent apparatus claim 25 requires "(b) recovering data symbols from the transformed OFDM signal, which include clipping noise; (c) estimating the clipping noise in the frequency domain based on the data symbols; and (d) subtracting the estimated clipping noise from the transformed OFDM signal."

The Examiner takes the position that independent claims 1, 9, 17, and 25 are anticipated by the Tellado reference and cites Figs. 24 and 29 and column 27, line 40 through column 28, line 57 of that reference as supporting his position. In particular, the Examiner states that the Tellado reference discloses "a block diagram of a receiver for decoding the transmitted OFDM clipped signal (recovering data symbols for the transformed OFDM signal, which including clipping

2

noise)... The first estimate of the distortion is extracted (clipping noise) and combined (subtracting algorithm performed) with the received signal (subtracting the estimated clipping noise from the transformed OFDM signal)."

Applicants respectfully submit that the Examiner's conclusions concerning the teachings of the Tellado reference are not supported by the cited portions of that reference or any other portion of the Tellado reference. At column 28, lines 6-9, the Tellado reference discloses that "[t]he receiver decodes the individual frequency domain components of the received distorted signal to generate a first estimate of the original signal." While the claims of the instant application recover estimates of the attenuated signal, the Tellado reference discloses estimating the original, unattenuated signal, which may contain errors due to the distortion. Further, column 28, lines 15-16 of the Tellado reference discloses that the "first estimate of the distortion is extracted and combined with the received signal.) The "combining" function disclosed in the Tellado reference is not a subtraction; rather, that combination is an addition. Thus, as can be clearly seen in Fig. 22, step 759 and Fig. 29 of the Tellado reference, the estimated distortion is added to the received signal to produce an estimate of the original, unattenuated signal. In contrast, claims 1, 9, 17, and 25 of the instant application require "subtracting the estimated clipping noise from the transformed OFDM signal."

The approach disclosed in the Tellado reference -- where an estimate of the original, unattenuated signal is produced by adding an estimate of the distortion to the received signal -- is nothing more than the prior art technique disclosed in the instant application at paragraphs [0056] – [0058]. Such technique is described in the instant application as being disadvantageous because it propagates decision errors.

In view of the foregoing, Applicants submit that the Tellado reference fails to disclose each and every feature of independent claims 1, 9, 17 and 25 of the instant application. Accordingly, Applicants respectfully request that the Examiner withdraw his § 102(b) rejection of these claims and their dependent claims.

At numbered part 2 of the Office Action, the Examiner rejected claims 5-6, 13-14, 21-22 and 29-30 under 35 U.S.C. § 103(a) as being unpatentable over the Tellado reference. The deficiencies of the Tellado reference have been discussed in detail hereinabove with respect to independent claims 1, 9, 17, and 25 of the instant application. The Examiner's § 103(a) rejection of the above-listed dependent claims cannot stand in view of these deficiencies. Indeed, the fact that the Tellado

reference discloses an entirely different technique for estimating a different quantity, namely, the original, unattenuated signal (as opposed to the attenuated signal) cannot be undone under § 103(a). To do so would be to imbue the Tellado reference with teachings that it does not contain or suggest.
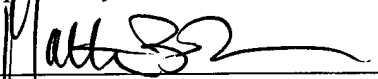
In view of the foregoing, Applicants respectfully request that the Examiner withdraw his § 103(a) rejection of claims 5-6, 13-14, 21-22 and 29-30.

Accordingly, Applicants respectfully submit that the instant claims are in condition for allowance. Early and favorable action is earnestly solicited.

In the event there are any further fees due and owing in connection with this matter, please charge same to our Deposit Account No. 11-0223.

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Respectfully submitted,

By _____

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